

# Marine ASV Range Surveillance System, Phase II

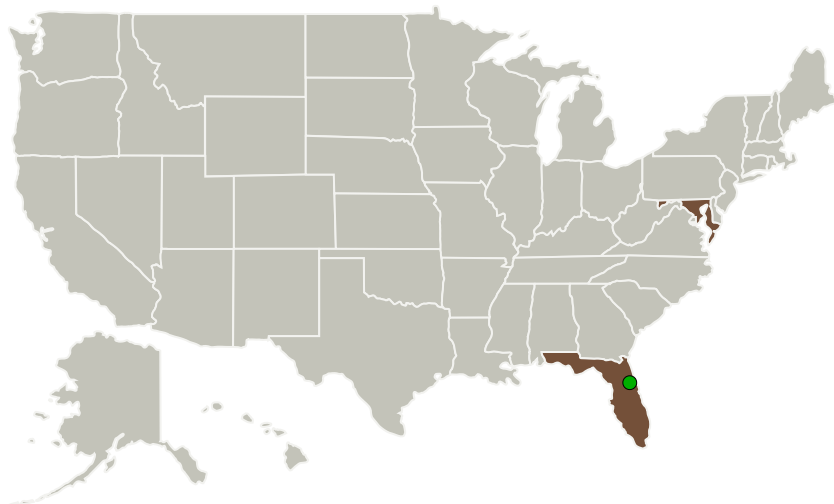
Completed Technology Project (2010 - 2012)



## Project Introduction

United States spaceports carry out the critical task of launching and recovering vehicles and payloads. These are extremely unique and expensive assets, and their successful deployment, operation, and recovery are essential to our nation's scientific discovery, economic prosperity, and national security. Surveillance and weather monitoring are significant factors in enabling safe, secure, reliable, and cost effective operations. Ranges encompass large marine regions that are expensive to monitor and not under the exclusive control of the spaceport. Marine regions include backwater areas (lagoon, river, and estuary) near the launch site, as well as the coastal and open-ocean regions extending hundreds of miles downrange. The most hazardous regions must be cleared and maintained clear in preparation for launch and reentry operations to ensure public safety as well as the safety and security of the vehicle itself. To support such operations, Emergent Space Technologies, Inc. (Emergent) proposes to develop the marine autonomous surface vehicle (ASV) range surveillance (MARS) system. MARS is an integrated solution that includes vehicle, payload and ground segments and will support automated collection and transfer of launch range surveillance and weather data. MARS provides enhanced situational awareness to range operators responsible for ensuring public safety, range availability, and mission success.

## Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
Emergent Space Technologies, Inc.	Lead Organization	Industry	Greenbelt, Maryland
● Kennedy Space Center(KSC)	Supporting Organization	NASA Center	Kennedy Space Center, Florida

Primary U.S. Work Locations	
Florida	Maryland

## Project Transitions

**January 2010:** Project Start**January 2012:** Closed out**Closeout Documentation:**

- Final Summary Chart(<https://techport.nasa.gov/file/139201>)

## Organizational Responsibility

**Responsible Mission Directorate:**

Space Technology Mission Directorate (STMD)

**Lead Organization:**

Emergent Space Technologies, Inc.

**Responsible Program:**

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

**Principal Investigator:**

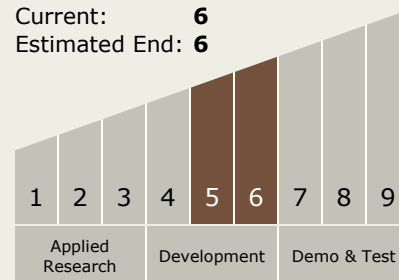
John R Higinbotham

## Technology Maturity (TRL)

Start: 5

Current: 6

Estimated End: 6



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### Technology Areas

#### Primary:

- TX16 Air Traffic Management and Range Tracking Systems
  - ↳ TX16.5 Range Tracking, Surveillance, and Flight Safety Technologies

### Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System